

IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICE

Patent Application

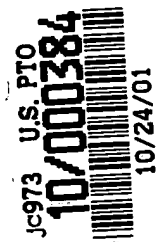
Inventor(s) Cristof Fetzer  
ZhenXiao

Docket No. 2000-0693

Serial No.

Filing Date

Examiner



Title Methods And Apparatus For Detecting Heap Smashing

COMMISSIONER FOR PATENTS  
WASHINGTON, D. C. 20231

SIR:

INFORMATION DISCLOSURE STATEMENT

In accordance with 37 CFR § 1.97(b), the enclosed Information Disclosure Statement, with attached reference(s), is submitted for consideration in the above-identified application.

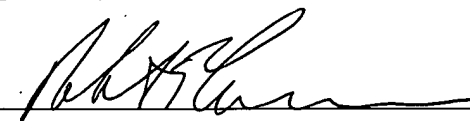
A copy of each of the listed documents is enclosed.

In accordance with 37 CFR § 1.97(h), by filing this Information Disclosure Statement, Applicants are not admitting that the information cited in the Statement is, or is considered to be, material to the patentability as defined in § 1.56(b).

**NO FEE REQUIRED**

In the event of non-payment or improper payment of a required fee, the commissioner is authorized to charge or credit **Deposit Account No. 01-2745** as required to correct the error.

Respectfully,

By   
Robert T. Canavan, Attorney  
Reg. No. 37592  
Phone 908-221-4535

Date: October 24, 2001

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|---|--------------|------------------------|
| <b>INFORMATION DISCLOSURE STATEMENT</b> | Docket No.   | 2000-0693              |
|   | Serial No.   |                        |
|   | Applicant:   | Christof Fetzer et al. |
|   | Filing Date: |                        |
|   | Group:       |                        |

jc973 U.S. PTO  
**10/000384**  
 10/24/01

**U.S. PATENT DOCUMENTS**

| *Examiner Initial |    | Document Number | Date | Name | Class | Subclass | Filing Dat |
|-------------------|----|-----------------|------|------|-------|----------|------------|
|                   | AA |                 |      |      |       |          |            |
|                   | AB |                 |      |      |       |          |            |
|                   | AC |                 |      |      |       |          |            |

**FOREIGN PATENT DOCUMENTS**

|  |    | Document Number | Date | Country | Class | Subclass | Translati n |
|--|----|-----------------|------|---------|-------|----------|-------------|
|  | AL |                 |      |         |       |          |             |
|  | AM |                 |      |         |       |          |             |
|  | AN |                 |      |         |       |          |             |

**OTHER (including Author, Title, Date, Pertinent Pages, etc.)**

|   |    |   |
|---|----|---|
| / | AP | R. Hastings et al., "Purify: Fast Detection of Memory Leaks and Access Errors," <i>Proc. of the Winter USENIX Conference</i> , 1992; pp. 125-136.   |
| / | AQ | T. M. Austin et al., "Efficient Detection of All Pointer and Array Access Errors," <i>Proc. of ACM SIGPLAN '94 Conf.</i> , June 1994, pp. 290-301   |
| / | AR | K-P. Vo, "Vmalloc: A general and efficient memory allocator," <i>Software Practice &amp; Experience</i> , March 1996, pp. 1-21.   |
| / | AS | K-P. Vo et al., "Xept: A Software Instrumentation Method for Exception Handling," <i>8<sup>th</sup> Int'l. Symposium on Software Reliability Engineering</i> , 1997                                 |
| / | AT | Aleph One, "Smashing The Stack For Fun And Profit," <i>Phrack Magazine</i> , 1998   |
| / | AU | C. Cowan et al., "StackGuard: Automatic Adaptive Detection and Prevention of Buffer-Overflow Attacks," <i>Proc. 7<sup>th</sup> USENIX Security Symposium</i> , San Antonio, Texas, Jan. 26-29, 1998 |
| / | AV | F. Salles et al., "MetaKernels and Fault Containment Wrappers," <i>IEEE Int'l. Symposium on Fault-Tolerant Computing</i> , 1999, pp. 22-29.   |

|                 |                        |
|-----------------|------------------------|
| <b>EXAMINER</b> | <b>DATE CONSIDERED</b> |
|                 |                        |

**\*Examiner:** Initial if reference considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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|   | Group:       |                        |



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|--|----|---|
|  | AW | D. Wagner et al., "A First Step Towards Automated Detection of Buffer Overrun Vulnerabilities," <i>Proc. of the Network and Distributed System Security Symposium</i> , 2000. |
|  | AX | A. Baratloo et al, "Transparent Run-Time Defense Against Stack Smashing Attacks," <i>Proc. of 2000 USENIX Annual Technical Conf.</i> , San Diego, CA, June 18-23, 2000.       |
|  | AY | BIND, <a href="http://www.securityfocus.com/vdb/bottom.html?vid=2303">http://www.securityfocus.com/vdb/bottom.html?vid=2303</a>   |
|  | AZ | Bruce Perens, ElectricFence: <a href="ftp://ftp.perens.com/pub/ElectricFence/">ftp://ftp.perens.com/pub/ElectricFence/</a>  |